

## Abstract

### Tension Member for an Elevator

- 5           A tension member for an elevator system has an aspect ratio of greater than one, where aspect ratio is defined as the ratio of tension member width  $w$  to thickness  $t$  ( $w/t$ ). The increase in aspect ratio results in a reduction in the maximum rope pressure and an increased flexibility as compared to conventional elevator ropes. As a result, smaller sheaves may be used with this type of tension
- 10 member. In a particular embodiment, the tension member includes a plurality of individual load carrying ropes encased within a common layer of coating. The coating layer separates the individual ropes and defines an engagement surface for engaging a traction sheave.